

AMPS80

ALPHA MODULAR POWER SYSTEM 80HP



- High performance AC or hybrid AC/DC backup power system offering 99.999% reliability for mission critical indoor applications
- 94% Efficiency, 15 year Design Life and MTBF (Mean Time Between Failures) greater than 200,000 hours results in class-leading TCO (Total Cost of Ownership)
- Intelligent system controller with integrated SNMP for local and remote management of AC & DC power modules, batteries, and other peripherals
- Hot swappable 2.5kVA/ 2.0kW inverter modules & optional 1.8kW rectifier modules offer total flexibility, scalability and low MTTR (Mean Time To Repair)
- Small footprint system offers up to 75kVA/ 60kW in a single 19" box bay rack, freeing up valuable rack and floor space

Introducing the Alpha Modular Power System 80HP (AMPS80), Alpha's new high performance AC or hybrid AC/DC system offering Telecom grade reliability, 94% efficiency, and high power density. The AMPS80 features hot swappable 2.5kVA/ 2.0kW inverter modules and optional 1.8kW rectifier modules that are the building blocks of a highly reliable power system utilizing -48 VDC battery bus. Alpha's smart unified controller with integrated Ethernet/SNMP interface monitors and manages both the inverter and rectifier modules through a web based GUI and local LCD touch screen. The controller also features Email notification via TCP/IP, user definable alarms and data logging, flexible battery management features, and smart peripheral monitoring features.

The AMPS80 meets your current and future power needs by allowing you to purchase only the power modules you need for current needs while having ultimate flexibility to scale up or down, depending on future power needs. Front access and user friendly connections make the system easy to install, easy to service and easy to upgrade. Furthermore, Alpha's hassle-free warranty and comprehensive support network for ordering spare modules make AMPS80 a smart and dependable investment decision.



Model:	AMPS80-3-75	AMPS80-3-30	AMPS80-2-40	AMPS80-1-20
Input & Output phase	120/208V 3-ph	120/208V 3-ph	120/240V or 120/208V 2-ph	120V single ph
Output capacity	7,500 to 75,000VA	7,500 to 30,000VA	5,000 to 40,000VA	2,500 to 20,000VA
Output power (resistive load)	6,000 to 60,000W	6,000 to 24,000W	4,000 to 32,000W	2,000 to 16,000W
Maximum Output current	208 A rms per phase	83 A rms per phase	168 A rms per phase	168 A rms
Max. no. of 2,500VA/ 2,000W inverter modules	30	12	16	8
Min. no. of 2,500VA/ 2,000W inverter modules	3	3	2	1
Technology	Twin Sine Inverter (TSI) technology; each inverter module has DC input & AC input			
Static switch	Not required; each module has its own static switch			
Efficiency	94% AC-to-AC; 90% DC-to-AC (from 50 to 100% full resistive load)			
Waveform	Pure sine wave			
Output power factor	0.8 (can run capacitive & inductive loads)			
Transfer time	Zero transfer time			
Warranty	2 year standard (1 and 3 year optional Extensions)			

Inverter Module AC Output	
Power rating	2,500 VA/2,000 W
Voltage range (AC)	90 – 140 V
Voltage accuracy	±2%
Frequency	60Hz (same as input frequency)
Inverter frequency accuracy	0.03%
Input power factor	>99%
THD (resistive load)	<1.5 %
Transient load recovery time	0.4 ms
Soft start time	20s
Maximum crest factor at nominal power	3.5
Short circuit overload capacity	10 x I _n for 20msec (AC-to-AC mode)
Short term overload capacity	150% for 5 seconds
Permanent overload capacity	110%
Synchronization range	57 – 63 Hz

Inverter Module DC Output	
Nominal voltage	48VDC
Voltage range (max)	40 – 60VDC (User Adjustable)

Max. DC input current				
	AMPS80-3-75	AMPS80-3-30	AMPS80-2-40	AMPS80-1-20
@48Vdc	1375A	550A	734A	366A
@40Vdc	1700A	680A	900A	450A
Voltage ripple	<2mV / <38 dbrnc			

Unified System Controller with integrated SNMP	
Control & Monitoring	Configure, control and monitor inverter & rectifier modules via Internet Explorer 7 onwards
Display	<ul style="list-style-type: none"> LCD Touch-screen Display (160 x 160 pixels) OK/ Major/ Minor 3-Color LED display Web based GUI via Ethernet
Communication Ports	<ul style="list-style-type: none"> RJ45 Ethernet Port RS232 Port (Front)

Mechanical Specifications

- Dimensions (mm): 2134H x 600W x 680D
(in): 84H x 23.6W x 26.75D
- System Weight (kg/lbs): 270/595
(without modules)
- Module Dimensions (mm): 88.9H x 102W x 435D
(in): 3.5H x 4W x 17.13D
- Module Weight (kg./lbs): 5/11
- Clearance:
 - Front: 15cm (6"); 51cm (20") with front door option
 - Rear: 30cm (12")
 - Sides: No clearance required
 - Top: 30cm (12")

Environmental Specifications

- Operating Temperature (full load): -20 to 40 °C (-4 to 104 °F)
- Storage Temperature: -40 to +70 °C (-40 to 158 °F)
- Relative Humidity: Up to 95%, non-condensing
- Operating Altitude: Up to 2,000m (6,562ft) above sea level

Agency Compliance



- Safety: UL1778 (2nd Ed); CSA C22.2 No. 107.3-05 UPS General Safety
- EMC: FCC CFR47 Part 15 Class A; ICES-003

Standard Features

- Unified system controller with integrated SNMP communications
- Top AC & DC feed access; bottom DC feed access (All user connections are front access)
- AC input & output breaker/disconnect switch
- Industrial grade surge suppression (rated to 40kA)

Options

- Up to 8 x 1.8kW rectifier modules
- Integrated maintenance bypass switch
- Inverter DC input breakers
- Service-entrance grade surge suppression: 140kA rating, per phase
- Lockable rack front-door
- Batteries (various sizes and technologies)

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